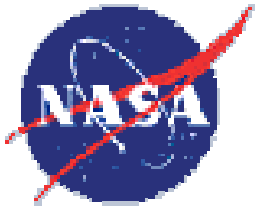

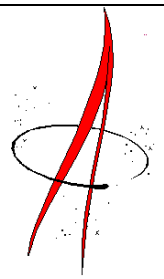

United States
2002 NASA Academy
at the NASA Goddard Space Flight Center

POLICIES, PRACTICES, AND PROCEDURES

HANDBOOK

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It is difficult to say what is impossible, for the dream of yesterday is the hope of today and the reality of tomorrow.

Robert H. Goddard

"Bear in mind that the wonderful things that you learn in your schools are the work of many generations. All this is put into your hands as your inheritance in order that you may receive it, honor it, add to it, and one day faithfully pass it on to your children."

Albert Einstein

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INTRODUCTION

1.1 What is the NASA Academy?

Welcome to the 2002 Session of the NASA Academy at the Goddard Space Flight Center (GSFC). This will surely be an experience that you will benefit from and remember for the rest of your life on Earth (or possibly the Moon, or Mars …). You will have many opportunities that few others, even within NASA itself, are privileged to experience. An important part of the Academy experience is the interaction among the Academy participants and their continuous engagement in "running" the Academy. Remember to make the most of your time here.

As a NASA Academy Research Associate awardee, you join the ranks of distinguished student-scholars/leaders selected in a rigorous National competition to represent this year the 10th NASA Academy at NASA Goddard Space Flight Center.

The NASA Academy is an intensive resident summer institute of higher learning for college undergraduate and graduate students interested in pursuing professional and leadership careers in aerospace-related fields.

The program for the 2002 NASA-GSFC Academy session (June 2 to August 9) is designed to present a comprehensive package of information and experiences about the organization of the NASA Agency, some of its most important current and planned science, engineering, and technology enterprises, as well as a number of non-technical areas of critical significance, such as management, budgeting, safety, personnel and career development, leadership, space law, international cooperation, etc. Besides attending lectures and workshops, the students will be involved three full days per week (Monday through Wednesday) in supervised research in assigned GSFC laboratories, and will participate in field trips and visits to the NASA Headquarters, Langley Research Center, Kennedy Flight Center, Johnson Space Center, Wallops Flight Facility, Applied Physics Laboratory, and a number of space-related local industries.

This handbook consists of guidelines designed to assist in an efficient transition from the moment of your arrival at GSFC to the formation of a cohesive, orderly, working group. It also states the conditions of our award, your responsibilities as a NASA Academy Research Associate, and the procedures observed by the University Programs Office in supporting and implementing your NASA Academy program.

The handbook is divided into several sections that include: a brief history of the **NASA Academy, details on its organization, working at GSFC, group opportunities (a**cademy activities outside the labs, field trips, rap sessions, group projects, etc.), recreation opportunities, l**iving at the "Academy House"**, information on local attractions, rules of conduct, etc. Please retain this Handbook for reference during your tenure.

1.2 Brief History of the NASA Academy

The NASA Academy was founded in 1993 (as the "NASA Space Academy") at the Goddard Space Flight Center by Gerald Soffen, former NASA scientist and Director of the Office of University Programs. Jerry was an accomplished scientist and a dedicated educator. He took advantage of the unusual opportunities presented to him during his career, and realized the importance of mentoring in the life of young professionals. The NASA Academy was intended to exceed in purpose and content the usual student internships at NASA. The students of the Academy would be a small group of the best and brightest, recruited from across the country. They would be given many opportunities which others could only imagine. By the end of the Academy session, the students would have been exposed to as many facets of NASA and its most relevant space program as possible.

In 1993, the first Space Academy enlisted 20 undergraduate and graduate students. It was a success, but it also represented an excessive work load for Jerry Soffen, as he organized and run the Academy without the support of a designated staff. In 1994, the second Space Academy was attended by 24 students. A small staff was assembled to help with the mountain of work required in running this unique program. Jim Brice, a graduate of the International Space University, assumed the position of General Manager, and Rob Bayt, an alumnus, took the post of Director of Student Affairs. The new staff greatly strengthened the efficiency and accomplishments of the Academy, and paved the way for the successful continuation of the Academy in the subsequent years.

The reputation of the Academy at GSFC spread to other NASA centers. In 1994 another Academy was started at the Marshall Space Flight Center. In 1997 the Academy was expanded to the west coast, both at the Ames Research Center and the Dryden Flight Research Facility. In recent years, the Goddard and Ames Academies have functioned regularly. The name was changed from “NASA Space Academy” to “NASA Academy” at a specific NASA Center. Jerry Soffen died on November 22, 2000. His dynamic vision and unique leadership opened many gateways. We honor his legacy by continuing the Academy program that he loved so well. It is intended that more Academy posts at various NASA Centers, with various profiles and areas of focus (Earth and Space Sciences and Technology Development at Goddard, Astrobiology at Ames, Aeronautics at Dryden, etc.), will allow more students to enroll, according to their specific interests and lines of study.

This year, the NASA Academy celebrates ten years of successful activity. From its inception in 1993, it has conducted summer research and training sessions at the Goddard, Ames, Dryden, and Marshall NASA Centers, and has graduated 336 participants (juniors, seniors, and first and second year graduate students) selected in a rigorous Nation-wide competition. The Goddard Academy has been continuously active throughout these ten years.

1.3 Objectives of the NASA Academy

- To support and enhance the general objectives and mission of the NASA Agency.
- To make available to the selected students guided access to extensive resources at the participating NASA research and space flight centers and their infrastructure, science, technology, and organizational and managerial expertise.
- To provide a unique, intensive and rigorous educational and training curriculum related to the organization of NASA, its in-house science and technology projects, its collaboration with other National centers, industry, and academia, and its extensive technology-transfer programs.
- To facilitate access to, and dissemination of, valuable information on career development paths, financial support, technical writing standards, intellectual property, etc.
- To create an environment that fosters creativity, personal initiative, and leadership qualities, together with group mentality, teamwork, and professional ethics.

1.4 Uniqueness of the NASA Academy

- NASA Academy represents an immersive and integrated multidisciplinary exposure and training for students with various backgrounds and career aspirations of critical importance to the National aerospace program.
- The academic program balances opportunities for direct contact with advanced science and engineering R&D and an awareness of the complex managerial, political, financial, social, and human issues faced by the current and future aerospace programs.
- Co-sponsorship of the Academy assures recruitment of meritorious students from previously under-represented area of the country into leadership positions for the aerospace programs of the future.
- The Academy is cost-effective, providing a richer program at a cost comparable to other, narrow-focus scholarships.

1.5 The NASA Academy Alumni Association (NAAA)

The NASA Academy Alumni Association (NAAA) was established in 1998. It has developed a network of members with enthusiastic commitment to contribute to the National space program mission, to further the engagement of young science and engineering students in aerospace-related careers, and to disseminate information about professional opportunities among its members. Among NASA Academy Alumni are students completing advanced degrees, employees of NASA Centers and contractors, and other professionals in aerospace-related fields ranging from science and engineering to education and journalism.

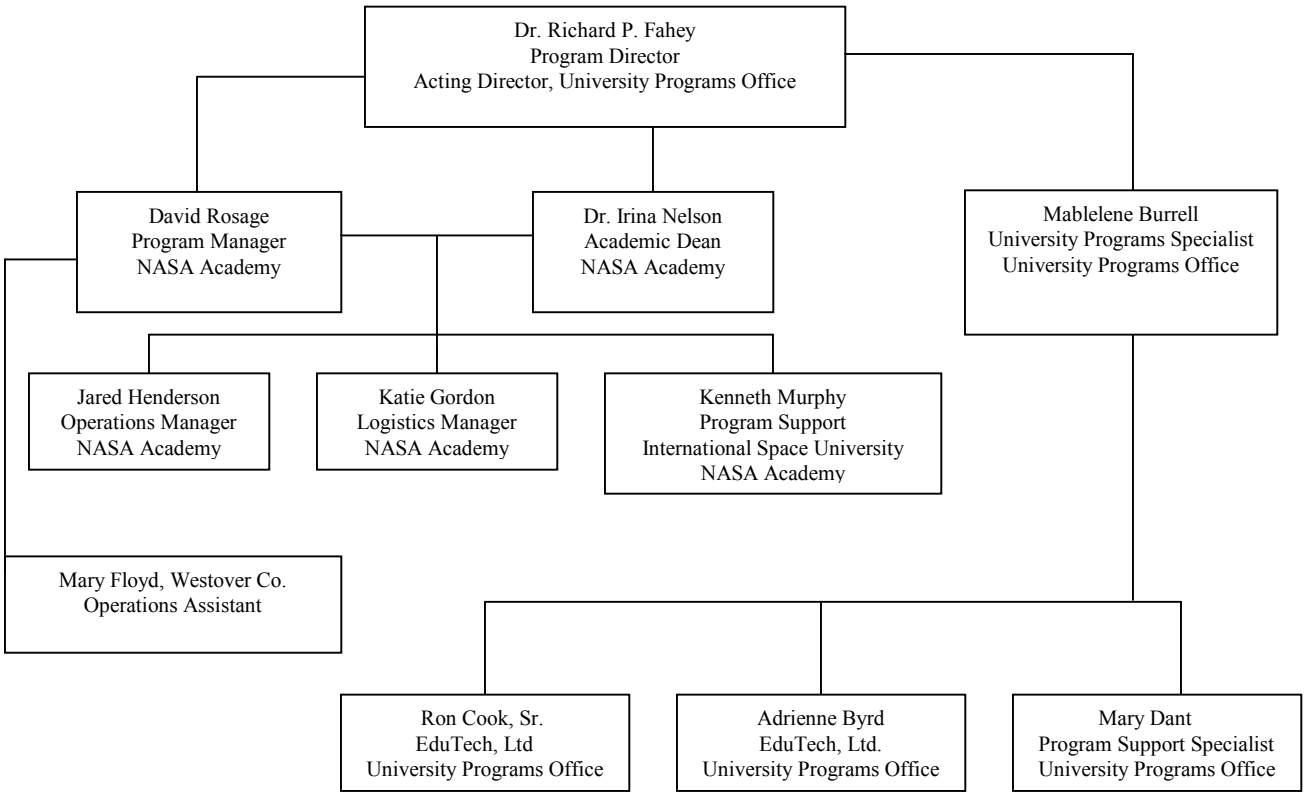
2. THE "2002 NASA ACADEMY AT GSFC" MANAGEMENT AND ORGANIZATION

2.1 Financial Support

Financial support is provided by the Center Director's Discretionary Fund (DDF) and the Space Grant Consortia of the students' affiliation states.

2.2 Organization

The NASA Academy at the Goddard Space Flight Center is administered within the NASA Office of University Programs. A schematic organizational chart is shown below:



Program Director - *Dr. Richard P. Fahey*
Dr. Fahey is the highest authority in the Academy. He currently serves as Acting Director of the Office of University Programs at GSFC, while continuing his research at GSFC and teaching at the U.S. Naval Academy in Annapolis. Dr. Fahey directs the Academy staff efforts in the organization and operation of the Academy and designs the strategic planning for the future.

Program Manager – *David Rosage*
David Rosage has obtained two Master's Degrees, one in Mechanical Engineering and the second in Program Management. Besides his position as General Manager of the NASA Academy, he is also Lead for Earth Science Education and Work Force Development at GSFC. Dave manages the day-to-day operation of the Academy. He oversees and prioritizes the disbursement of the Academy budget, organizes the Academy trips to facilities and extracurricular activities outside GSFC, and participates in advertising the Academy and the selection and placement of the RAs in the hosting GSFC laboratories.

Dean of Academic Affairs – *Dr. Irina Nelson*
Dr. Nelson, a physicist with long-time record in research and education, is currently also appointed as Special Assistant for Research and Outreach in the NASA Goddard Office of University Programs. As Dean of the NASA Academy, she is involved in the development of the Academy curriculum, its general academic program, and the strategic vision for NASA Academy. She is responsible for providing academic counseling to the Academy participants on their individual research work, the group project, and all the other academic activities. She also provides advice to the Program Director on the individual participants' performance.

Operations Manager – *Jared Henderson*
Jared is an alumnus of the 2001 NASA Academy at GSFC. He is a senior in Physics and Computer Science at the University of Arkansas.

Logistics Manager- *Katie Gordon*
Katie is also an alumnus of the 2001 NASA Academy at GSFC. She is a senior in Electrical Engineering at the Texas Christian University.

Program Support: *Kenneth Murphy*, International Space University (ISU)
Kenneth is an alumnus of the International Space University in Strassbourg, France.

In the operation of the NASA Academy 2002 Jared, Katie, and Kenneth will provide general assistance and logistics coordination. They will be residents at the Academy House, and will act as facilitators of the Academy participants' Working Committees and other House activities. Other specific duties include: maintain the daily calendar of events, provide support in maintaining the Academy computer hardware resources, maintain the Academy database, and coordinate special events.

Special Assistant for Operations, Westover Consulting Co. - *Mary Floyd*
Mary provides support for housing, meals, distribution and collection of the Academy participants' reimbursement, and also for transportation and lodging on field trips.

University Programs Specialist: *Mablelene Burrell*
Mablelene Burrell holds an MBA degree with concentration in Organizational Management. Prior to coming to the NASA Goddard Space Flight Center, she taught business courses at the community college and university levels. She currently administers undergraduate, graduate, and postdoctoral programs, and has worked intimately with the NASA Academy since its inception.

Programs Support Specialist: *Mary Dant*
Mary Dant has 29 years of government experience at the NASA Goddard Space Flight Center. Prior to coming to Code 160, Ms. Dant worked on the Center Director's staff for eight years. Ms. Dant has worked in Codes 100 (Office of the Director), 200 (Management Operations Directorate), 400 (Flight Programs and Projects Directorate), 500 (Applied Engineering and Technology Directorate), and 600 (Space Sciences Directorate), giving her diverse knowledge in many areas.

Ms. Dant is the Lead Coordinator for the Center Director's Discretionary Fund (DDF), and also the Lead Coordinator for the Goddard Senior Fellow's Program (GSF). Additional duties include being the Code 100 Representative for the People With Disabilities (PWD) Committee and a GSFC Diversity Team Member. All of these programs are under the direct leadership of the Center Director.

Program Support Specialist, EDUTECH, Ltd.: *Adrienne Byrd*
Adrienne has worked in higher education for eight years in the areas of Residential Life, Multicultural Affairs, and Campus Activities. She transitioned from the college environment to Goddard in 1999 as Manager of the Educator Resource Center for three years. Currently, Adrienne is a Program Specialist in the University Programs Office. She earned a Bachelors degree in Sociology from Bucknell University and Masters degree in Counseling and Personnel Services from the University of Maryland at College Park.

Event Specialist, EDUTECH, Ltd.: *Ron Cook, Sr.*
For the past two years Ron has served as Program Support Specialist in the University Programs Office. He provides programmatic support for a variety of research and educational programs. Ron's background working with both government and the private sector industry give him unique capabilities in working with Goddard University Programs.

Together with the designated Academy staff listed above, the Academy participants are expected to be actively involved in running the Academy and assuring its day-to-day success.

2.3 The NASA Academy 2002 Participants (Research Associates)

The Research Associates (RAs) are the student/researchers, participants in the Academy, selected in a Nation-wide competition. The sixteen participants in the 2002 NASA Academy at GSFC have been selected from among 83 applicants supported by 48 State Space Grant Consortia.

This year, the NASA Academy Research Associate are:

Name	State	College/University	Major (Rank)
Julie Arnold	MA	Massachusetts Intitute of Technology	Aerospace Engineering (Junior)
Olivia Billett	CT	Yale University	Astronomy & Physics (Senior)
Justus Brevik	WA	University of Washington	Physics and Astronomy (Senior)
Edward Burkett	AK	University of Alaska	Electrical Engineering (Senior)
Michael Elder	SC	Furman University	Computer Science (Senior)
Paul Gosling	MD	Johns Hopkins University	Physics (Junior)
Scott Liddle	KS	University of Kansas	Aerospace Engineering (Junior)
Sara MacLellan	AZ	Embry-Riddle Aero University	Aeronautical Engineering (Senior)
Omar Mireles	NM	New Mexico State University	Mechanical Engineering and Applied Mathematics (Senior)
Lydia Nemirovsky	NY	Hunter College of CUNY	Physics (Senior)
Ravi Prakash	TX	University of Texas	Aerospace Engineering (Junior)

William Pomerantz	MA	Harvard University	Earth & Planetary Science (Senior)
Donald Sam	MT	Salish Kootenai College	Environmental Science (Senior)
Natalie Udovidchik	NJ	Rutgers University	Mechanical and Aerospace Engineering (Junior)
Kenneth Vanhille	UT	Utah State University	Electrical Engineering (Senior)
Jennifer White	WI	Ripon College	Physics and Math (Junior)

The responsibilities of the Academy RAs include:

- Work with the assigned Principal Investigators (PIs) on the individual laboratory or field project
- Work on the "Group Project"
- Attend all Academy functions (lectures, workshops, rap sessions, field trips)
- Prepare and deliver poster and oral presentations related to the individual and group project work executed over the summer Academy session
- Assist in the operation of the Academy

3. WORKING AT THE NASA GODDARD SPACE FLIGHT CENTER

3.1 The NASA Goddard Space Flight Center (NASA-GSFC)

The NASA Goddard Space Flight Center (GSFC) was created on January 15, 1959, and named in honor of Robert H. Goddard, the American pioneer in rocket research. The first 157 employees were recruited from the Vanguard project and transferred from the Naval Research Laboratory in Washington, DC

The mission of the NASA Goddard Space Flight Center is to expand the knowledge of the Earth and its environment, the solar system, and the universe, through observations from space. To assure that the Nation maintains leadership in this endeavor, the Center is committed to excellence in scientific investigation, in the development and operation of space systems, and in the advancement of essential technologies. GSFC is the lead Center in NASA's Earth Systems Science program (formerly "Mission to Planet Earth"), NASA's long term, coordinated research effort to study the Earth as a global environmental system.

3.2 The NASA-GSFC Grounds and Important Buildings

GSFC is a campus-like facility. An overview map is included in Appendix V of this Handbook. Notice that all the buildings are referred to by number, and that successive numbers are not assigned to adjacent buildings (The buildings were numbered in the order in which they were built).

Since you may be doing a bit of walking on the GSFC grounds, keep the weather in mind. Temperatures during the summer often pass 90^0F (30^0 C), with high humidity. This can often contribute to intense thunderstorms in the afternoons, so bring an umbrella.

Building 1 - GEWA (Goddard Employees Welfare Association) Exchange Store, Ticketmaster, US Postal Sub-Station), cafeteria
Building 3 - Auditorium
Building 8 - GSFC Director's Office, Graphics department, Auditorium, Office of Public Affairs, DCR.
Building 9 - Security gate-shack and building.
Building 21 - Main Cafeteria, Library, NASA Federal Credit Union, ATM Machine
Building 28 - NASA GSFC Academy /University Programs Office
Building 88 - Visitors' Center, Gift Shop (outside the GSFC boundaries. Entrance is from the Soil Conservation Road.)

3.3 Transportation to and from NASA-GSFC

The Academy students will participate in a carpooling system of local transportation. Those who bring their own vehicles may volunteer to drive in their cars other fellow Academy participants. They will be reimbursed for mileage on all official Academy trips and commuting between the House and GSFC.

As a rule, during the Academy session, the participants will travel in organized groups, using personal cars, chartered busses, the Metro, or commercial airplanes. In exceptional cases, individual participants may use the Metrobus system. Metrobus schedules are available at the GEWA exchange store (Bldg 1). The T16 bus provides connections to the Green line Metro terminal near Greenbelt Plaza, and the Orange line terminal at New Carrolton station. The Green line can be taken between the College Park station and the Greenbelt station. The T-15, and T-17 buses supplement the route during rush hours. Buses generally stop at Goddard once every hour and more frequently during rush hours.

3.4 Your Image

As a NASA Academy Research Associate, you represent the Academy and NASA in all situations. It is important to remember that your actions can reflect (positively or negatively) on the Academy as a whole. It is imperative for the Academy participants to make a positive impression on NASA workers, administrators, scientists, and external experts and personalities you are likely to meet. To optimize the validity of the professional contacts you will make as Academy RAs, you will be issued a number of business cards.

Regarding the dress code, GSFC is known to be one of the more relaxed NASA Centers. Of course, when you perform experimental laboratory work, you may have to wear casual or special laboratory clothing. However, on visits to the NASA Headquarters and various industrial or academic sites, or when giving formal presentations, business-like attire is required.

3.5 NASA-Goddard Space Flight Center Security

You should be aware at all times that the NASA GSFC Center is a Federal facility governed by mandatory security rules and procedures. These rules and procedures may change, depending on specific domestic and/or international circumstances. All GSFC entrance Gates are guarded by armed security personnel.

Personal Security Badges

The GSFC Security Office (located in Building 9, adjacent to the Main Gate on Greenbelt Road) will issue you temporary personal security badges, which you should wear in plain view at all times, when entering the GSFC Gates, while you are at GSFC, and also on the Academy official field trips. If you are ever in doubt about whether or not to bring your badge to an Academy function or field trip, just bring it.

You will also receive a NASA Academy badge, which you may want to wear together with your security badge. The NASA Academy badge will identify you as a NASA Academy RA, but can never be used as a substitute for the personal security badge.

IMPORTANT NOTE: Do not wear your security badge when you are off-duty (for example when going to the store or at the mall).

Sometimes, security personnel may execute routine checks inside the GSFC premises, especially after the regular day-time hours. If you have misplaced your badge, or have lost it and are not even aware that this happened, you should explain who you are, and get cleared over the phone by the Academy Director or Manager.

Loss of your personal GSFC security badge is a serious matter. Notify the Academy staff immediately; they will inform you of the proper procedure to report a lost badge.

Traffic

If you drive your own car, be prepared to be stopped at the Gate and have your vehicle thoroughly searched.

The speed limit on roads is 25 mi/hr. When approaching the gates and parking areas, the speed limit is 15 mi/hr.

Yield to pedestrians (…and geese…) at all times!

Parking is allowed only in designated spaces. No parking permits are required.

3.6 Various Learning Opportunities at GSFC Outside the NASA Academy Program

Scientific Colloquia - location varies, often Bldg. 3 or 8 Auditoria

Occasional "Lecture Series" on specific topics, usually open to all NASA employees, the press, and/or the general public. Often, the lectures are followed by informal receptions, which give the attendants the opportunity to speak with the featured guests and the other participants.

"Brown Bag" meetings, a relatively new series of lunchtime talks given by guest speakers in an informal setting. In the past, many of the speakers have been NASA Academy Alumni.

Semi-weekly "Tea and Poster Sessions", displaying various scientific projects going on at GSFC , organized as informative venues for all Goddard employees.

The GSFC Library (Bldg. 21), a technical library containing a large selection of space oriented books and periodicals. The Library currently provides extensive on-line resources. In order to check out any materials from the Library, you will have to apply for a Library Card.

4. THE ACADEMIC PROGRAM

4.1 Laboratory Work. The Research Project.

To the extent possible, each RA has been placed in a host laboratory or group that matches best the RA's educational background and interests. The duties of the RAs within their individual projects are established in agreement with the host PIs or group leaders, and may include equipment design and testing, experimental data collection and processing, computer software development and use, field work, etc. On the first day of the Academy summer session, there will be an orientation meeting, which all the Principal Investigators are invited to attend. After the meeting, your PI will escort you to the site of your host laboratory and will introduce you to the other team members and co-workers. Your PI will explain you the details of the project you will be involved in, as well as your specific duties within the project.

The projects you have been assigned to are often at the "cutting-edge" of science and technology.

4.2 The Lecture / Workshop Curriculum

The Lecture / Workshop curriculum of the NASA Academy 2002 contains topics related to:

- The five NASA strategic enterprises:
  - Aerospace Technology
  - Biological and Physical Research
  - Earth Science
  - Human Exploration and Development of Space
  - Space Science
- Advanced Concepts
- Space Commercialization
- Space Policies / Space Law / International Issues
- Leadership
- Education / Outreach / Workforce Development
- History, legacy, and mission of NASA (*"... as only NASA can ..."*)

4.3 After-Dinner Guest Presentations at the NASA Academy House

Regular evening events at the House will be scheduled, where visiting speakers will attend the dinners and make after-dinner presentations related to their contributions to the space program. Past visitors at the House have included NASA Headquarters officials, scientists from various colleges and universities, Academy staff members, etc. If you have a topic of interest to the Academy, you can also use this opportunity to be after-dinner speakers.

4.3.1 **The Group Project**

This year, the NASA Academy Group Project is entitled "**NASA Investigation of Health Impacts from Atmospheric Dust**". The Project will be described in detail by a team of NASA-GSFC scientists in a half-day symposium at the beginning of the NASA Academy session. After that, the project will be developed by the Academy students in directions that they choose and to the extent that time and financial constraints will allow. Dr. Nancy Maynard will act as the lead consultant. For more information, go to
http://academy.gsfc.nasa.gov/2002/NA02_Group_Project.pdf .

4.5 The Poster Session

On Tuesday, July 9, the Academy students will participate in a "Poster Session" where they will demonstrate their familiarity with the assigned research work by presenting a description of their project and the progress achieved up to that time. The poster session is open to the entire GSFC community, and is usually attended by numerous GSFC scientists, engineers, and visitors. You are expected to be able to answer the participants' questions and explain the basic principles and features of the projects, as well as your contribution to the ongoing work. The informal professional exchanges with the experts attending the Poster Session may be extremely beneficial to you. Take advantage of them. They may help enhance your performance in the assigned project work, give you ideas about your successful preparation for the Final Presentation Session, and may also result in valuable professional contacts to be used in your future educational and employment-seeking efforts.

The Academic Dean and the other Academy staff will assist you by providing complete instructions and help in preparing professional-quality posters, as needed.

4.6 The Final Presentation Session and Graduation Ceremony

The last day of the Academy 2002 session will be important and festive. It will represent your "graduation" day. A full-day "NASA Academy Final Presentation Session" will be organized, and the general attendance is expected to include the RAs' supervisors (the PIs) and co-workers, other GSFC scientists and engineers, representatives of the NASA GSFC administration, the NASA Academy staff, NASA Academy alumni, as well as friends and family of the Academy RAs. Special invitations will be sent to representatives of the NASA Headquarters, the NASA GSFC Senior Scientists, and the external experts who have interacted with the Academy RAs. You will receive abundant support from the Academy staff in preparing presentations of high quality, regarding both content and form.
At the conclusion of the Final Presentation Session, you will be officially inducted into the NASA Academy Alumni Association.

5. LIVING ACCOMODATIONS

5.1 "The House"

Housing for the Academy in 2002 continues a tradition started in 1995. In order to benefit from a "group" environment and receive more efficient services, the Academy participants will be staying at the Sigma Delta Tau sorority house ("The House") on the campus of the University of Maryland at College Park (UMCP). Located about 7 miles from GSFC, the beautiful UMCP campus area is an ideal setting for the Academy "off-hours" activities.

The large residence house has three floors and a finished basement. The common rooms - dining room, kitchen, large TV room, study room, and computer room - are located on the first floor and in the basement. All the bedrooms are on the second and third floors. Each bedroom floor contains a bathroom facility with 3 showers, toilet stalls, and sinks. Women and men will be located on separate floors, with separate bathroom facilities. The bedrooms are designed for double, triple, and quadruple occupation. Room partnerships will be decided by the Academy staff. Each Academy student will have a bed, a desk, and a closet. Single-room occupancies are not available.

5.2 Linen Service/Laundry

Sheets, pillows, blankets, and towels will be provided. Each student will get two flat sheets, one pillow and pillow case, one blanket, and two towels. The linens are changed weekly.

Coin-operated laundry machines (two washers and two dryers) are located in the basement of the house. The cost is $0.50 per load.

5.3 Eating at the House

In-house dinner meals will be provided by a catering company every Tuesday, Wednesday, and Thursday. Access to the house kitchen is open on the remaining days of the week, during certain limited hours. The refrigerator in the dining room can store provisions for those late-night snack attacks. A microwave oven is also available.

5.4 House Cleaning

The Academy has contracted a professional cleaning company to service the house once a week. The cleaning person will vacuum and dust the common areas of the house: the basement, the first floor, and the hallways and bathrooms of the second and third floors. The cleaning person will NOT clean the bedrooms.

5.5 Computer Facilities at the House

A number of IBM and Macintosh computer stations will be installed in the basement of the house. These computers will have basic software such as MS-Word, Excel, PowerPoint, as well as access to the Internet. You are allowed to bring your own laptop computer, if you wish. Use of your own laptop or of the work-stations in the computer lab is unlimited, provided that it does not disturb the scheduled group activities of the Academy or the resting time of the Academy members.

5.6 Mail and Telephone Use at the House

You can receive personal mail at the house, beginning May 30, 2002, at the following address:

The Sigma Delta Tau Sorority House
4516 Knox Rd.
College Park, MD 20740

If you fill out a Post Office Change of Address form, please make sure to mark on it the 'temporary' box and specify May 30, 2002, as the starting date, and August 8, 2002, as the ending date. Towards the end of the Academy summer session, you will need to fill out a new Post Office Change of Address form.

The house telephone will be available for incoming calls only. A coin-operated-payphone will be available within reasonable restrictive boundaries. If you bring and want to use your own cellular phones, you are requested to observe common-sense rules of courtesy compatible with living in the organized group environment of the NASA Academy.

6. STIPEND MANAGEMENT

6.1 Room and Board

Room and board for all NASA Academy Research Associates is provided by the NASA Academy. Meals are either provided or paid for and require some financial planning by the Academy participants. You will receive checks for Per Diem advances at several points during the Academy. These cash advances are to be used for meals outside the program, primarily on weekends.

6.2 General Services

The Academy contracts Westover Consulting for conference coordination. This year, Ms. Mary Floyd with Westover Consulting will act as the Special Assistant for Operations. She will process the Per Diem advances and expense reports, and will be the liaison between NASA and the service providers for the Academy.

6.3 Computer Resources

Computer resources will be provided in your assigned research labs at GSFC, and also in the Academy residence house. You are allowed to bring your own laptop computer.

6.4 Meals

On weekdays, the breakfast and lunch meals will be taken at the GSFC Cafeterias in Buildings 1 and 21. Three nights a week (Tuesday, Wednesday, and Thursday), dinners will be catered to the Academy house. The staff will make the menu selections for the first two weeks, after which, the Academy RAs will make the selections. The Academy house will have bottled water service and the caterer will provide a juice machine for 24-hour thirst quenching.

On Monday and Friday evenings, and on the weekends, you arrange for your own meals, but the cost of these meals will be provided by the Academy, at a standard approved rate.

Upon your arrival, you will receive a limited amount of food vouchers, called "NASA Bucks," **for the entire summer, at a rate of $8.00 per day.** The vouchers are used as cash, but you cannot receive change back for the unused portion of a voucher.

6.5 The Per Diem System

A Per Diem system has been established in compliance with the governmental regulations, to cover some pre-approved personal expenses such as mileage, office supplies, etc. You will receive the first installment of your allowance money up-front, during the first week of your arrival. On the first day at the NASA Goddard Center, you will be granted the opportunity to open a bank account with the NASA Federal Credit Union

There will be 3 Per Diem advance periods for which you will receive payment by check. Spending guidelines per day are set according to the number of meals, and the allowances areas follows:

- Dinner Friday and Monday - $12 each night for a total of $24
- Saturday and Sunday, all meals - $25 per day for a total of $50
- No alcohol may be claimed.

You will receive a Daily Per Diem Calendar detailing your allowances throughout the summer. It is in your best interest to closely follow the schedule and system for the summer.

At the end of each advance period, you are required to submit a detailed expense claim form.

In order to receive your graduation certificate, you must turn in your final expense form. If you have any incidental expenses listed on this final report, a reimbursement check will be mailed to your home address after the end of the Academy session.

6.6 Mileage Reimbursements

RAs will be reimbursed for mileage driven on personal vehicles while commuting to and from GSFC or on Academy field trips.

7. THE CITIES OF GREENBELT AND COLLEGE PARK, MD

The NASA Goddard Space Flight Center is located within the city of Greenbelt. College Park, about six miles distance from NASA-GSFC, is a university town. Many of the usual establishments and points of interest are conveniently located just across the street from the NASA-GSFC Main Gate, or outside the University of Maryland campus, on Route 1 (barbers/hairstylists, convenience stores, etc.) From the website http://www.route1.com/, you can download and print out coupons offered by various stores in College Park.

7.1 Supermarket

The nearest convenient supermarket stores are the “Giant”, located on Greenbelt Road in Greenbelt Plaza, and “Safeway”, also on Greenbelt Road, closer to NASA-GSFC. You will pass them every day on the way to and from work.

7.2 Movie Theater

The nearest convenient movie theater is also located inside Greenbelt Plaza. If you want to use the Metro to Washington, D.C., you will find a theater inside the Union Station. At the Union Station, the best theater is the "Grand", which is equipped with Digital Stereo sound. Other really high-end theater systems are located in Calverton and Chevy Chase (Uptown). At all these movie theaters, you can obtain discount tickets by showing your student ID.

7.3 General Stores

A small strip mall just south of the UMCP campus, on Route 1, has a CVS store. A 7-Eleven store is located across the street from this strip mall.

7.4 Video Store

The closest video store is the Blockbuster, also located within the strip mall.

7.5 Photocopy Service

A Kinko's store, open 24 hours/day, is located behind the CVS. Of course, as members of the 2002 NASA Academy, you will be allowed to use the NASA GSFC photocopiers for work related to the Academy activities. Your supervising PIs and the Academy staff will authorize usage of the GSFC Graphics Department.

7.6 Shipping Service

A “Mailboxes, Etc.” outlet store is located near the UMCP main south gate. You can rent a PO Box there if you want to. However, mail slots will be assigned to you at the Academy House.

7.7 Radio Stations

97.9 – Classic Rock plus some new stuff (Pink Floyd, Aerosmith, Everclear)
101.1– Mostly new stuff and some old (Rock and Alternative)
105.7—Oldies
94.7 – Classic Rock and Southern Rock (Allman Brothers, Lynyrd Skynyrd)
95.5 – Rap and R&B
93.1 – Country
104.1 -- Pop and Dance

APPENDIX I: Impressions of NASA Academy Alumni

"The Academy is the definition of a full-time experience - if this was the summer you planned on catching up on your reading or exercising 4 hours a day - forget it! The three most important qualities you need to have are a PASSION for space and the future, a COMMITMENT to the Academy (you must "give yourself to the Academy), and enough CONFIDENCE in yourself to believe you can change the world. Over only ten weeks you will garner more useful, real-world knowledge than you did all through college, meet an incredible number of brilliant and exciting people, and supply yourself with more tools than you could ever use to achieve your highest goals!"

-Eric A.

"Attending the Academy was one of the most rewarding experiences of my college career, the work is challenging and the friends you make will last a lifetime."

- Jeff A.

"The NASA Academy is a tool for making your dreams into reality. It provides the right framework and opportunities for developing the maturity and gaining the knowledge needed to interact with today's engineers and scientists."

- Rob B.

"The NASA Academy was a refreshing change after years of classroom and textbook learning. It was all about leadership and learning through interaction. The Academy gave me a renewed sense of enthusiasm for the space program and reminded me about all of the reasons why I chose this field in the first place!"

- Robin S.

"It ain't Space Camp. It ain't Star Trek. The Academy is as real as it gets for college students." - David V.

"The NASA Academy is a once-in-a-lifetime experience. In a ten week period one learns more about NASA, government and industry relations with NASA, people, and oneself. It is an intense time of learning, experiencing, researching, meeting new people, making life-long friends, and basically having a great time. Not for those who enjoy relaxing, only for those with an intense desire to lead, and to learn about leading."

-Todd C.

"The NASA Academy is a dream-come-true experience, but only for those people seriously interested in the Space Program." -
Warren B.

"NASA Academy is not for people who lack passion about space exploration; nor is it for people who like to relax for extended periods of time. It is challenging, in that one must handle one's research tasks and also keep up with the tightly-scheduled encounters with NASA engineers, scientists, and administrators. If you can keep up with the pace, the rewards of NASA Academy -- research experience, professional development, and a new group of friends and colleagues in the "space community," among other things -- are proportional to your efforts." -Mike L.

"Ever desire to pull the face off your wristwatch or remove the cover from your radio to discover how these devices operate? NASA Academy does this to the space program, and just like seeing the springs of the watch or the circuit boards in the radio, you'll find yourself with familiar and unfamiliar objects that present to you the challenge of understanding how everything works together." -Laura S.

*"My Academy experience was great. The program is for people who are interested in Space, NASA, and space-related industries. **You don't have to have planned out your life in the space industry for the next 10 years, including a trip to the Moon or Mars or even be able to recite the entire Star Wars trilogy from memory (although one of us this summer did :).** What you do need is a bright mind, a true interest in Space, and a passion for working with people. **This program is NOT for you if you are strictly interested in research work. There are some other programs at Goddard that do that better.** **This program IS for you if you are interested in doing some research with one of the best scientists or engineers at Goddard on a cutting-edge project, learning about the structure, policy, and politics of Goddard, NASA, and the space program, and working closely with a bunch of motivated, exciting, and bright people like yourself.** Of course, it is quite a fast-paced program. You'll be working with other students from around the country (and the world) on your own projects."*
-Grant B.

"After my experience at NASA's space academy, I was asked to apply my new knowledge to Utah State University's space design class as a systems engineer. I met my wife in that class. A couple of years later, the professor for that class recommended me for a job as a spacecraft systems engineer, which I accepted." - Mark W.

“The Academy gives you an in depth look at how NASA operates without hiding anything. As a result, you get to see both the strong points and the weak points of NASA. With this knowledge, it is possible for you to start thinking about what needs to be continued and what needs to be changed. I believe this is very important because if you do not understand the dynamics of a system you can not apply control to it."

-Jose G.

"SPACE. Suspended effortlessly looking at your mother planet. Your chest feels compressed, your eyes water, as you stand humbly in awe before the greatest and most beautiful sight you have ever seen: Planet Earth. The whole of blue mother Earth. Waltzing with you in the presence of millions of stars, across the greatest of ballrooms... SPACE." -Enectali F.

"The summer that I spent attending the first NASA Academy was one of the most rewarding times of my life. More than anything, the Academy is a learning experience. From my interaction with the program, I learned not only about NASA, but how science and technology relate to society on broader scales, and how important it is that we keep the flame of exploration burning bright and hot." -Matt L.

"This program is truly more than it is billed to be. I feel it has provided me with the tools to begin my long journey as a future leader in our space program and help me meet some incredible people that I will be working with along the way." -Ran

APPENDIX II: Useful Internet Resources

Web Site of the NASA Academy:
http://www.nasa-academy.nasa.gov/

Web Site of the NASA Academy Alumni Association:
http://www.nasa-academy.org/

APPENDIX III: Useful Contacts

NASA Academy 2000 and University Programs Office Personnel (in alphabetic order):

Mablelene Burrell
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Dr. Irina Nelson
Dean of Academic Affairs, NASA Academy
Special Assistant for Research and Outreach
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David Rosage
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APPENDIX IV: Driving Directions to the Academy House

(the Sigma-Delta-Tau Sorority House of the University of Maryland: 4516 Knox Rd., College Park, MD 20740, Tel: 301-864-8803)

It is assumed that you make your way from your home state to the "Washington, D.C., Beltway". This is the closed-loop freeway that surrounds the District of Columbia and the capital of the Nation. (Study carefully the map. The city of Baltimore also has its own "Beltway"!)

The Washington, D.C. "Beltway" has the route designation "495".

Exit the Beltway "495" at Exit No. 25, which shows the sign: "Baltimore Avenue / Route 1 / Laurel / College Park".

At the fork in the ramp, take "Route 1 South" toward College Park. You will now be entering "Route 1", also called "Baltimore Avenue".

From this point on, drive straight ahead for exactly 2.9 miles. As you approach the end of this 2.9 miles stretch, you will cross "Greenbelt Road", "Paint Branch Rd.", "Rossborrough Ln", "College Avenue / Regents", and finally come to "Knox Rd.." .

Turn left on "Knox Rd.". The Academy residence house ("Sigma-Delta-Tau") is a few houses away, on your left. Welcome!

APPENDIX V: Map of the NASA Goddard Space Flight Center